with the transit instrument, is nearly ready, and will be distributed very shortly.

Similar inquiries to yours have been addressed to me from different quarters. To prevent further misunderstanding, I would feel very much obliged if you would insert in the *Monthly Notices* this account of the reasons why vols. viii. and x. of the *Observations de Poulkova* will be published considerably later than respectively vols. ix. and xi.

Pulkowa, 1879, *March* 24.

The Nautical Almanac for 1882.

The Superintendent communicates the following errata, which, as referring to the Transit of *Venus*, are of unusual importance:—

'Presentation copies of the *Nautical Almanac* for 1882 to public Observatories, Institutions, and a few others, require the following corrections:

Page 402	*for*	contact at Ingress	129°	*read*	145°
„		contact at Egress	79°	„	114°

'The remainder of the impression has been corrected.'

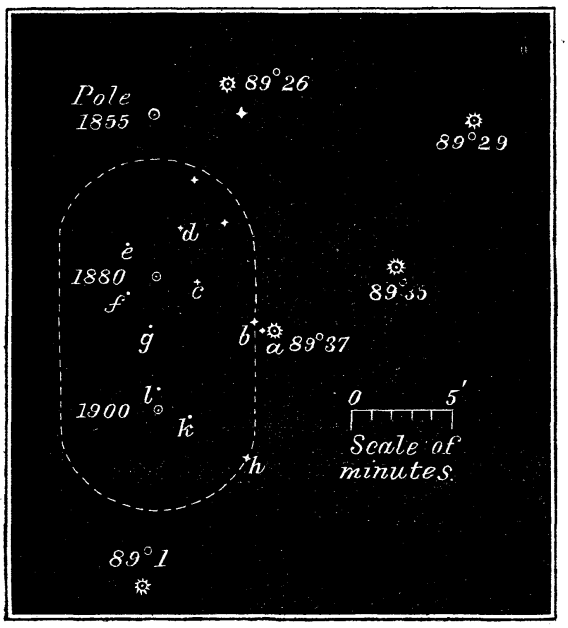
Stellar Magnitudes; a Request to Astronomers.

By Edward C. Pickering, Director of the Harvard College Observatory.

The scales adopted by different observers in their estimates of stellar magnitudes differ considerably from each other, as is well known. As regards the brighter stars, these differences, indeed, are comparatively unimportant; but they become larger and more perplexing when the objects observed are faint. Variations of three or four magnitudes may be expected between the estimates made of the brightness of minute companions seen near a brilliant star. It is needless to point out the inconvenience of this state of affairs, which at times nearly deprives the estimated magnitudes found in Catalogues of their meaning, and consequently of their value.

In the hope of providing a partial remedy for this defect, a series of Photometric Observations of Stars of various magnitudes, situated near the North Pole, has been undertaken at the Harvard College Observatory. The region has been selected as one which may always be conveniently observed in the northern hemisphere, so that the brightness of a star observed in another part of the sky can readily be compared by estimate with any standard polar stars the relative brightness of which may have been determined by photometric measurements.

The table and chart given below are designed to serve as guides in finding the stars which are, as has been said, in course of photometric measurement at the Harvard College Observatory. The stars given in the table are arranged approximately in the order of their brightness, the first being *α Ursæ Minoris*, which is taken in all cases as the standard of comparison, and the next three, *δ Ursæ Minoris*, 51 *Cephei*, and λ *Ursæ Minoris*.



DM.		α 1880.		δ 1880.	
°		h	m	°	′
88	8	1	14	88	40
86	269	18	11	86	37
87	51	6	44	87	14
88	112	19	44	88	57
88	4	0	51	88	23
88	9	2	3	88	36
89	3	2	28	89	36
89	35	17	50	89	48
89	37	19	28	89	54
89	1	0	19	89	45
89	26	13	23	89	49

The chart is a copy of a sketch showing the approximate relative position of ten faint stars very near the pole, which are denoted by the italic letters *a*, *b*, *c*, *d*, *e*, *f*, *g*, *h*, *k*, *l*. The places of the pole for 1855, 1880, and 1900, and of five stars from the *Durchmusterung*, four of which occur in the table, are also

indicated upon the chart, to facilitate the identification of the faint stars. The objects called *c* and *e* are nearly in the prolongation of the line through DM. 89° 37 and *b*. Between these last, and more nearly in the same line than it appears to be in the chart, lies the star *a*.

The value and interest of the photometric results to be obtained at the Harvard College Observatory may be greatly increased by the co-operation of astronomers elsewhere. All who are desirous of improving the present system of comparing the brightness of stars are therefore requested to make estimates of the magnitude of as many as may be convenient of the stars above mentioned. It is desirable that the estimate should be made, for each star which may be observed, on five different nights, and that each estimate should be, if possible, entirely independent of those previously made. It will add to the value of the work if, on every occasion when the fainter stars are looked for, a record is made of such of them as can then be seen, even if no estimate of their magnitudes is attempted.

Observers are also requested to note the approximate places of any stars not represented upon the chart, but within five minutes of the place of the pole at any time between 1880 and 1900. The boundary of this region is represented on the chart by a dotted line. The stars not shown within it have been omitted as unnecessary for the purpose of finding the others, and several of these omitted stars are inconveniently faint for photometric observation; but records of their visibility at any time and place will be valuable as evidence of the state of the atmosphere and character of the instrument employed in the observations.

All astronomers who may be induced by this request to make any observations of the kind just described will confer a favour upon the Harvard College Observatory by sending to it a copy of their records, accompanied by a statement of any modification of the proposed method of observation which they may have adopted, as well as any additional details which may appear desirable, with regard to the instruments employed, &c. Unless the contrary is requested, the results will be published with the photometric measurements obtained at the Harvard College Observatory; and a copy of the publication will be sent to each observer who has co-operated in the work.

It is hoped that a large number of those astronomers whose experience has been sufficient to establish a definite scale for their estimates of stellar magnitude will consent to take part in the proposed observations, in order that the published series of observations may be complete enough to be of general utility.
